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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,099	08/04/2003	William Troy Tack		5866

7590 06/30/2005
Wm. Troy Tack
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Glenwood, MD 21738

EXAMINER

MORILLO, JANELLE COMBS

ART UNIT PAPER NUMBER

1742

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/634,099	Applicant(s) TACK ET AL.	
	Examiner Janelle Combs-Morillo	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 16-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

3. The examiner was unable to find support for the amended alloying ranges (either implicitly or explicitly) in the original disclosure (amended Zn minimum in claim 16, alloying ranges in cl. 18 and 20). Though said alloying ranges fall within the broad ranges of the invention, preferred ranges of 6.3-10% Zn, 7.6-8.6% Zn, 5.0-7.0% Zn, 1.8-2.2% Mg, etc. were not originally stated in the disclosure. Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 16-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rogers, Jr et al (US 3,984,259) in view of "Aluminum and Aluminum Alloys" p 23-24, 62, 262-265.

Rogers teaches a method of working and heat treating an aluminum alloy with 5.2-6.2% Zn, 1.9-2.5% Mg, 1.2-1.9% Cu, 0.18-0.25% Cr, balance aluminum (abstract) by casting a billet, homogenizing, extruding into starting stock for impact extrusion, annealing, impact extruding, solution heat treating, quenching, and aging (column 2 lines 35-45, column 3 lines 66-67, column 4 lines 1-2). Rogers teaches the annealing prior to impact extruding is necessary to soften the alloy prior to subsequent forming which helps eliminate defects (column 4 lines 14-20, column 5 lines 53-60). Rogers does not teach performing said impact extrusion process on an Al-Zn alloy within the presently claimed alloying ranges.

However, "Aluminum and Aluminum Alloys" teaches that impact (or cold) extrusion is a cost effective way to form intricate parts (p 262 2nd column). "Aluminum and Aluminum Alloys" further teaches that slugs for said impact extrusions can be extruded profiles (p 264, 1st column) that are preferably annealed prior to impact extruding (p 262, 2nd column). 7xxx alloys in general are known as high strength and poor cold workability ("D-type", see Table 1 p 62). The alloy taught by Rogers, 7475, is taught by "Aluminum and Aluminum Alloys" to have D-type cold workability.

It would have been obvious to perform steps of casting, homogenizing, extruding starting stock, annealing, and impact extruding (as taught by Rogers) other high strength and low workable 7xxx series alloys (such as 7015, 7021, 7023, 7029, 7149, which fall within the instant limits, see "Aluminum and Aluminum Alloys" at p 23), because Rogers teaches that said process produces a produce with a surface free from cracks (column 1 line 8) and because "Aluminum

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and Aluminum Alloys” teaches that nearly all aluminum alloys can be cold extruded (p 262 column 2).

Rogers does not mention a YS of > 85ksi (claims 16, 18), > 90 ksi (claims 17, 19), > 65 ksi, or >70 ksi (claims 20, 21). However, because the combination of Rogers and “Aluminum and Aluminum Alloys” teaches a method of casting, working, and heat treating overlapping 7xxx type alloys, then substantially the same properties, are also expected to occur (absent evidence to the contrary). Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). The prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. *In re Best*, 562 F.2d at 1255, 195 USPQ at 433. See also *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985), see MPEP 2112.01.

Response to Amendment/Arguments

6. In the response filed on April 12, 2005 applicant canceled claims 1-15 and added new claims 16-21. As stated above, the amended alloying ranges are held to be new matter.

7. Applicant’s argument that the present invention is allowable over the prior art of record because Rogers does not teach performing said process of extruding starting stock and impact

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extruding an alloy within the instant alloying ranges has not been found persuasive. Though Rogers is drawn to an alloy outside the presently claimed alloying limits, "Aluminum and Aluminum Alloys" teaches aluminum alloys that fall within the presently claimed ranges. Furthermore, it would have been obvious to perform steps of casting, homogenizing, extruding starting stock, annealing, and impact extruding (as taught by Rogers) other high strength and low workable 7xxx series alloys (such as 7015, 7021, 7023, 7029, 7149, which fall within the instant limits, see "Aluminum and Aluminum Alloys" at p 23), because Rogers teaches that said process produces a produce with a surface free from cracks (column 1 line 8) and because "Aluminum and Aluminum Alloys" teaches that nearly all aluminum alloys can be cold extruded (p 262 column 2).

Applicant has not clearly shown specific unexpected results with respect to the prior art of record or criticality of the instant claimed range (wherein said results must be fully commensurate in scope with the instantly claimed ranges, etc. see MPEP 716.02 d).

Applicant's arguments (see p 2-3), with respect to the obviousness type double patenting rejection have been fully considered and are persuasive. The ODP rejection in view of claims 1-13 of US 6,627,012 has been withdrawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

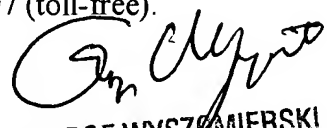
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM

June 24, 2005


GEORGE WYSZOMIERSKI
PRIMARY EXAMINER
GROUP 1700